CLAIMS

1. An apparatus comprising:

a first circuit configured to calculate and present an output signal having a first resolution in response to (i) an input signal having a second resolution and (ii) one or more control signals; and

a second circuit configured to generate said control signals in response to (i) a previous calculation by said first circuit and (ii) one or more input parameters, wherein said first circuit is configured to scale and filter said input signal.

2. The apparatus according to claim 1, wherein said input signal comprises a 3-component video signal.

3. The apparatus according to claim 1, wherein said input signal comprises a 3-component video signal with a separate alpha component.

4. The apparatus according to claim 1, wherein said first circuit independently calculates a horizontal component and a vertical component of said output signal.

5. The apparatus according to claim 1, wherein said apparatus comprises a portion of a block move engine (BME).

6. The apparatus according to claim 1, wherein said apparatus is configured to operate on one or more blocks of data.

7. The apparatus according to claim 6, wherein said apparatus is configured to read a block of data a scan line at a time.

8. The apparatus according to claim 7, wherein said apparatus is configured to (i) process said scan line, (ii) write said scan line back to a memory and (iii) process a next scan line.

9. The apparatus according to claim 1, wherein said apparatus is configured to filter data providing improved appearance of scaled images.

10. The apparatus according to claim 1, wherein said apparatus is configured to allow a one or more input pixels to contribute to the creation of one or more output pixels.

11. The apparatus according to claim 1, wherein said apparatus is configured to scale alpha data associated with an image.

12. An apparatus comprising:

means for calculating an output signal having a first resolution in response to (i) an input signal having a second resolution and (ii) one or more control signals;

means for generating said control signals in response to (i) a previous calculation by said first circuit and (ii) one or more input parameters; and

means for scaling and filtering said input signal.

13. A method for scaling and filtering of video, comprising the steps of:

(A) calculating an output signal having a first resolution in response to (i) an input signal having a second resolution and (ii) one or more control signals;

(B) generating said control signals in response to (i) a previous calculation by said first circuit and (ii) one or more input parameters; and

(C) scaling and filtering said input signal.

13. The method according to claim 12, wherein said input signal comprises a 3-component video signal.

14. The method according to claim 12, wherein said input signal comprises a 3-component video signal with a separate alpha component.

15. The method according to claim 12, wherein step (A) further comprises:

independently calculating a horizontal component and a vertical component of said output signal.

16. The method according to claim 12, further comprising the step of:

operating on one or more blocks of data.

17. The method according to claim 16, further comprising the step of:

reading a block of data a scan line at a time.

18. The method according to claim 17, further comprising the step of:

(i) processing said scan line, (ii) writing said scan line back to a memory and (iii) processing a next scan line.

19. The method according to claim 12, further comprising the step of:

filtering to data provide improved appearance of scaled images.

20. The method according to claim 12, further comprising the step of:

allowing one or more input pixels to contribute to the creation of one or more output pixels.